



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,155	10/01/2003	Hui-Chuan Hung	67,200-1114	8165

7590 01/14/2005  
TUNG & ASSOCIATES  
Suite 120  
838 W. Long Lake Road  
Bloomfield Hills, MI 48302

EXAMINER

NGUYEN, JIMMY

ART UNIT	PAPER NUMBER
----------	--------------

2829

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/677,155

Applicant(s)

HUNG, HUI-CHUAN

Examiner

Jimmy Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4, 9 – 11 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Navratil et al (US 6777964).

**As to claim 1**, Navratil et al disclose (fig 7) an apparatus for electrically testing a Microelectronic product comprising:

an electrical test head (102) to which is mated a microelectronic product (104) for electrically testing the microelectronic product (104); and

movable electrical probe tip (110) positioned with respect to the electrical test head (102) such as to electrically stress a portion the microelectronic product other than an electrical contact portion of the microelectronic product.

**As to claims 2 - 4, 10, 11**, Navratil et al disclose (fig 7) an apparatus of claim 1 wherein the microelectronic product (104) is semiconductor product, ceramic substrate and optoelectronic product.

**As to claims 9, 16,** Navratil et al disclose (fig 7) an method for electrically testing a microelectronic product comprising:

an electrical test head (102) to which is mated a microelectronic product (104) for electrically testing the microelectronic product (104); and

movable electrical probe tip (110) positioned with respect to the electrical test head (102) such as to electrically stress a portion the microelectronic product other than an electrical contact portion of the microelectronic product

sequentially movably positioning the electrical probe tip (110) and electrically biasing the microelectronic product while simultaneously electrically testing the microelectronic product.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 , 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Navratil et al (US 6777964).

**As to claims 5, 12, 17,** Navratil et al disclose (fig 7) everything except for a controller to control the position of the probe tip. However, the controller which:

controls electrical probe tip positioning and biasing with respect to the portion of the microelectronic product other than the electrical contact portion of the microelectronic product; an simultaneously collects corresponding electrical test data from the microelectronic product is obvious disclosed in figure 7, the electrical probe (110) is connected to tester (not shown, throughout the cable).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was make to provide the tester or controller within the testing system for the purpose of the controlling and transmitting the testing signal.

5. Claims 6 – 8, 13 – 15, 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Navratil et al (US 6777964) in view of Kitahata (US 6686753).

**As to claims 6, 13, 18,** Navratil et al disclose (fig 7) all the limitation of the apparatus of claim 1. However, Navratil et al are silent on radiation beam source positioned with respect to the electrical probe tip such as to simultaneously radiation stress the portion of the microelectronic product other than the electrical contact portion of the microelectronic product.

On the other hand, Kitahata teaches (fig 3) radiation beam source (11) positioned with respect to the electrical probe tip (6) such as to simultaneously radiation stress the portion of the microelectronic product other than the electrical contact portion of the microelectronic product.

Art Unit: 2829

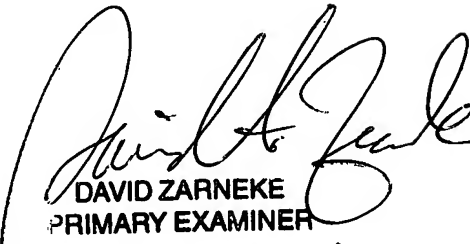
It would have been obvious to one having an ordinary skill in the art at the time of the invention was make to modify the testing system with the beam source for the purpose of the testing the device optically.

**As to claims 7, 8, 14, 15, 19, 20**, Kitahata discloses (fig 3) the apparatus of claim 6 wherein the electrical probe tip and the radiation beam source are on the same side or opposite side of the microelectronic product (22). (column 2 lines 52 – 55).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

JN.  
Jan 7, 2005

  
DAVID ZARNEKE  
PRIMARY EXAMINER  
1/12/05